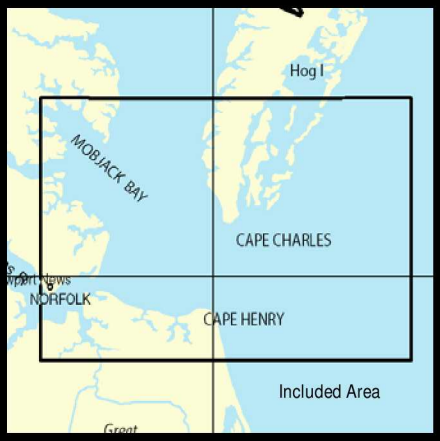
BookletChart™

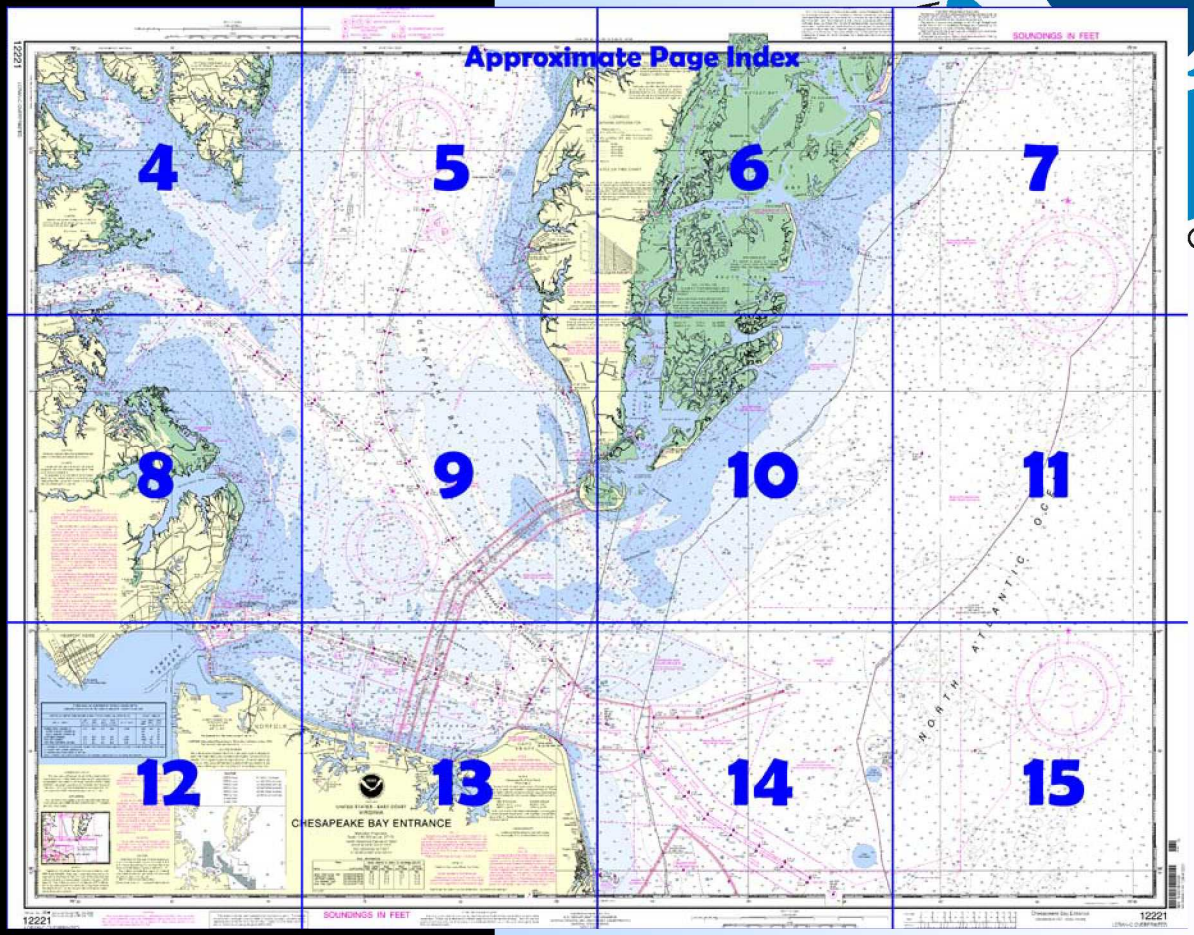
Chesapeake Bay Entrance

(NOAA Chart 12221)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*



Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

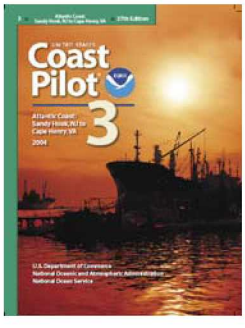
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot Chapter 9 excerpts]

(9) **Chesapeake Bay**, the largest inland body of water along the Atlantic coast of the United States, is 168 miles long with a greatest width of 23 miles. The bay is the approach to Norfolk, Newport News, Baltimore, and many lesser ports. Deep-draft vessels use the Atlantic entrance, which is 10 miles wide between Fishermans Island on the north and Cape Henry on the south. Medium-draft vessels can enter from Delaware Bay on the north via Chesapeake and Delaware Canal, and light-draft vessels can enter from Albemarle Sound on the south via the Intracoastal Waterway.

(11) Endangered northern right whales may occur in approach channels to the Chesapeake Bay. They are most likely to occur in the area from November through April.

(13) **Chesapeake Light** (36°54'17"N., 75°42'46"W.), 117 feet above the water, is shown from a blue tower on a white superstructure on four piles, 14 miles eastward of Cape Henry. The name CHESAPEAKE is displayed on all sides. A fog signal and racon are at the light. A fish haven, consisting of sunken fishing-boat hulls and marked by private unlighted buoys, is about 0.4 mile southwestward of the light.

(14) **Cape Charles,** on the north side of the entrance, is low and bare, but the land back of it is high and wooded.

(15) The southwest end of **Smith Island** is 2.4 miles eastward of Wise Point; the island is 6 miles long, low and sparsely wooded, and awash at half tide midway along its length.

(16) **Cape Charles Light** (37°07'23"N., 75°54'23"W.), 180 feet above the water, is shown from an octagonal, pyramidal skeleton tower, upper part black and lower part white, on the southwestern part of Smith Island. The ruins of the old lighthouse are in shallow water 0.7 mile eastward of the light.

(17) **Smith Island Shoal,** which breaks in heavy weather, has depths of 21 feet 7.5 miles east-southeast of Cape Charles Light. Depths less than 40 feet extend another 5 miles northeastward. Outer limits of the shoal area are marked by a lighted buoy.

(18) **Nautilus Shoal,** which extends 4 miles southeastward from Fishermans Island, has patches with depths of 6 to 11 feet. The buoyed channel along the southwest side of Nautilus Shoal, thence northward between Fishermans Island and **Inner Middle Ground,** had a controlling depth of about 16 feet in 1977-1980. The channel is used by local vessels drawing up to 12 feet. This channel is not recommended for strangers because of shifting shoals. In 1996, a 10-foot shoal was reported 1.5 miles S of Fishermans Island in about 37°03'31.2"N., 075°57'27.0"W.

(19) Breakers frequently occur along the axis of Inner Middle Ground, starting on the seaward side of the Chesapeake Bay Bridge-Tunnel and continuing the entire length of the shoal. This phenomenon appears to be associated with large swells rolling in from sea from the south-southeast to southeast.

(21) **Cape Henry Light** (36°55'35"N., 76°00'26"W.), 164 feet above the water, is shown from an octagonal, pyramidal tower, upper and lower half of each face alternately black and white, on the beach near the turn of the cape.

(25) The summer resort of **Virginia** is about 5 miles southward of Cape Henry Light. Many high-rise buildings, two water tanks, and an aerobeacon 2.8 miles inland are prominent. A hotel cupola, 3.4 miles south of Cape Henry Light, is distinctive.

(26) **Chesapeake Bay Bridge-Tunnel** extends from Cape Charles across the bay entrance to a point 6 miles westward of Cape Henry. The 15-mile crossing has vehicular tunnels under Chesapeake Channel and Thimble Shoal Channel with fixed bridges over Fishermans Inlet and secondary channels. In addition to the channel buoys and lights, daybeacons and fog signals mark the openings at Chesapeake and Thimble Shoal Channels. At night the floodlighted tunnel houses are more prominent than the privately maintained lights marking the channels. In July 1996, a two-lane low level and high level fixed span bridge was under construction about 267 yards westward of the existing fixed highway bridge across Chesapeake Bay; upon completion, the clearances will be the same as the existing bridge.

28) Normal precautions dictated by prudent seamanship are expected of all vessels. Mariners transiting this area are, however, urged to be particularly alert in regards to the weather. To assist in this respect, the National Weather Service provides 24-hour weather broadcasting on 162.55 MHz. The local Marine Operator also transmits weather information at 0000, 0600, 1200, and 1800 local time on 2450 kHz and 2538 kHz. Information of a pending weather frontal passage should be met with advance preparations. Engines readied for short notice maneuvering and anchor details alerted are considered minimum prudent precautions. Maneuvering in close proximity of the bridge-tunnel complex is also discouraged.

(42) The current velocity is 1 knot on the flood and 1.5 knots on the ebb.

Table of Selected Chart Notes

NOTE C
HAMPTON ROADS TUNNEL
APPROACH SPANS
HOR CL 45 FT
VERT CL 10 FT

NOTE I
Wolf Trap Dumping Ground lighted buoys "A", "B" and "C" are not charted due to frequent relocations.

Corrected through NM Jan. 17/09
Corrected through LNM Jan. 13/09

HEIGHTS
Heights in feet above Mean High Water.

Mercator Projection
Scale 1:80,000 at Lat. 37° 05'
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details, see U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Norfolk, VA	KHB-37	162.550 MHz
Heathsville, VA	WXM-57	162.400 MHz

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilots 3 and 4 for important supplemental information.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE H
Mariners are cautioned that the Ferry Route from Little Creek to Cape Charles may deviate from the published standard route due to inclement weather, traffic conditions, navigational hazards or other emergency conditions.

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

For Symbols and Abbreviations see Chart No. 1

CAUTION
Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area *Cable Area*

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

LOCAL MAGNETIC DISTURBANCE
Differences of as much as 6° from the normal variation have been observed 3 to 17 nautical miles offshore from Cape Henry to Currituck Beach Light.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE B
DANGER AREA
Area is open to unrestricted surface navigation but all vessels are cautioned neither to anchor, dredge, trawl, lay cables, bottom, nor conduct any other similar type of operation because of residual danger from mines on the bottom.

RACING BUOYS
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.524" northward and 1.216" eastward to agree with this chart.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.

NOTE E
Chesapeake Bay Bridge-Tunnel
(Private lights)
Trestles A & B - In each trestle section the fixed navigation opening for small craft consists of a group of 3 spans. A fixed green light marks the centerline of each span and fixed red lights mark outermost bridge support piling on each side of the openings.

WESTERN SPANS		EASTERN SPANS
HOR CL 70 FT	AUTH	HOR CL 70 FT
VERT CL 23 FT		VERT CL 21 FT

North Channel & Fishermans Inlet Bridges - A fixed green light marks each mid-channel, with fixed red lights marking channel limits. Fixed red obstruction lights mark each pier in Trestles C and D.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilots 3 and 4. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Norfolk, Virginia.
Refer to charted regulation section numbers.

NOTE F
CAUTION
The Chesapeake Bay Bridge-Tunnel Complex has on several occasions suffered damage from vessels due to adverse weather conditions. Currents in excess of three knots can be expected in the area. Mariners transiting this area are urged to be particularly alert in regards to the weather situation. The National Weather Service provides 24 hour weather broadcasting on 162.55 MHz. The Local Marine Operator also transmits weather information at 0100, 0700, 1300 and 1900 local time on 2538 and 2450 kHz. Transmitting schedules are subject to change, see Notice to Mariners. Maneuvering in close proximity of the bridge-tunnel complex is discouraged.

NOTE S
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown. Lighted buoys A through F are uncharted due to frequent relocations.

NOTE D
EMERGENCY RESTRICTED AREA
For the latest information regarding the regulations of any emergency restricted area, contact the Army Corps of Engineers, Norfolk District, Regulatory Branch at (757) 201-7653/7652.

NOTE G
TRAFFIC SEPARATION SCHEME
The traffic separation scheme is designed to aid in the prevention of collisions at the approaches to Chesapeake Bay and does not supersede or alter the applicable Rules of the Road.
The RECOMMENDED routes for entering and departing from Chesapeake Bay are overprinted on this chart. The Northeast Approach is marked by a tinted magenta line centered on a line of fairway buoys which separates the courses of inbound and outbound vessels. Vessels should leave all buoys on their port hand.
It is RECOMMENDED that the following ships use the Southern Approach deep-water route when bound for Chesapeake Bay from sea or to sea from Chesapeake Bay: Deep-draft ships, drafts defined as 42 feet/12.8 meters or greater in fresh water, and naval aircraft carriers. Ships drawing less than 42 feet/12.8 meters may use the deep-water route when, in their master's judgment, the effects of ship characteristics, its speed, and prevailing environmental conditions may cause the draft of the ship to equal or exceed 42 feet/12.8 meters.
It is RECOMMENDED that a ship using the deep-water route:
Announce its intention on VHF-FM channel 16 as it approaches Chesapeake Bay Southern Approach Lighted Whistle Buoy "CB" on the south end, or Chesapeake Bay Entrance Lighted Whistle Buoy "CH", on the north end of the route;
Avoid, as far as practicable, overtaking other ships operating in the deep-water route;
Keep as near to the outer limit of the route which lies on the starboard side as is safe and practicable.
All other ships approaching the Chesapeake Bay traffic separation scheme should use the appropriate inbound or outbound traffic lane of the traffic separation scheme.
Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Boarding Area is outlined by a magenta band.

Additional information can be obtained at nauticalcharts.noaa.gov.

CAUTION
FISH TRAP AREAS AND STRUCTURES
Mariners are warned that numerous uncharted duck blinds and fishing structures, some submerged, may exist in the fish trap areas. Such structures are not charted unless known to be permanent.
Regulations to assure clear passage to and through dredged and natural channels, and to established landings, are prescribed by the Corps of Engineers in the Code of Federal Regulations.
Definite limits of fish trap areas have been established in some areas, and those limits are shown thus: ———————
Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

ANCHORAGE AREAS
110.168 (see note A)
Limits and designations of anchorage areas are shown in magenta.

(A) (B) (C) (D) NAVAL ANCHORAGE
(E) COMMERCIAL EXPLOSIVES ANCHORAGE
(Q) QUARANTINE ANCHORAGE
(E-1) EXPLOSIVES HANDLING BERTH
(Q-1) (Q-2) QUARANTINE ANCHORAGE BERTH

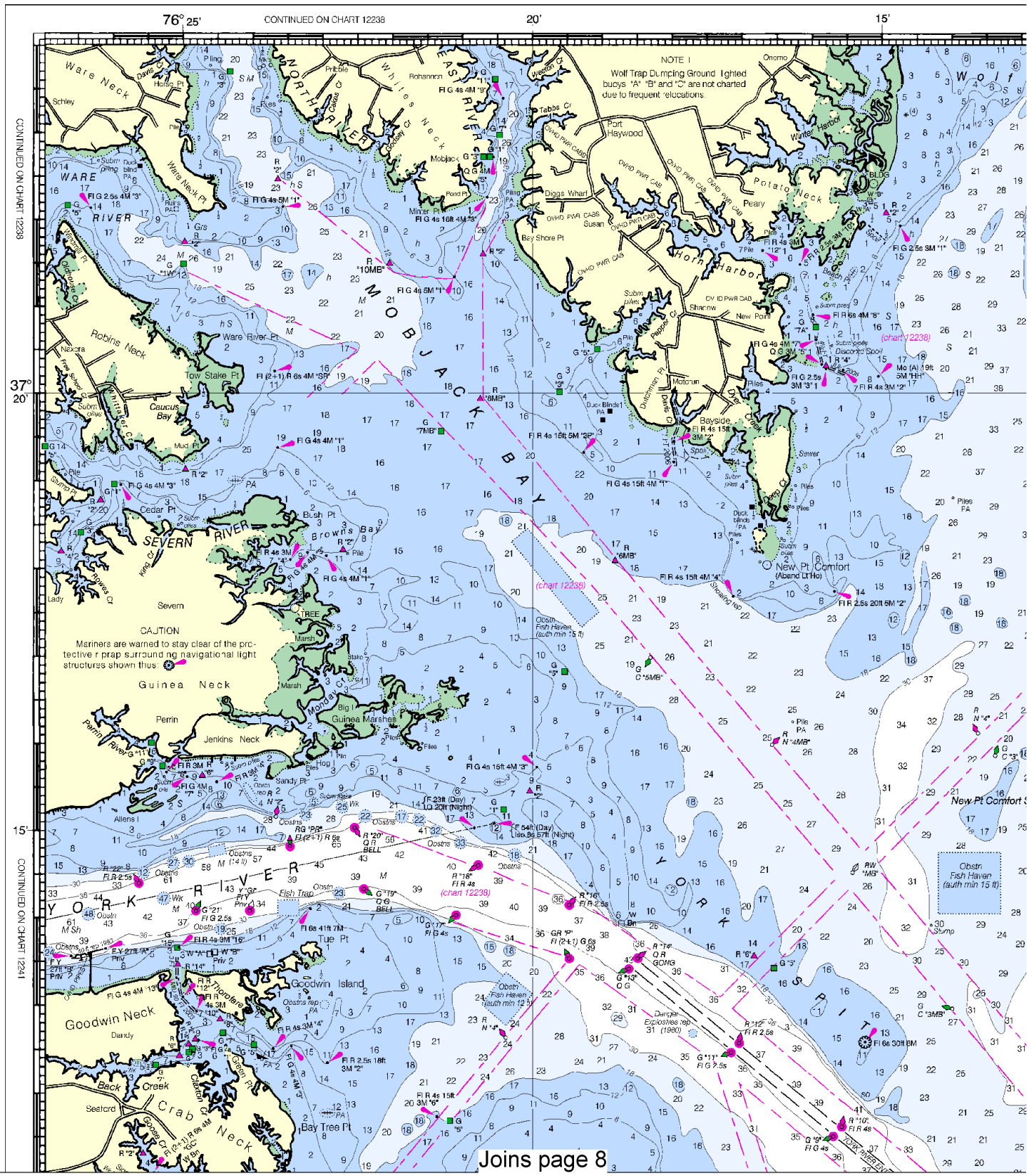
TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Wolf Trap Light	(37°23'N/76°11'W)	1.8	1.7	0.1
Tue Marshes Light	(37°14'N/76°23'W)	2.5	2.3	0.1
Fishermans Island	(37°06'N/75°59'W)	3.4	3.2	0.1
Old Point Comfort	(37°00'N/76°19'W)	2.8	2.6	0.1

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

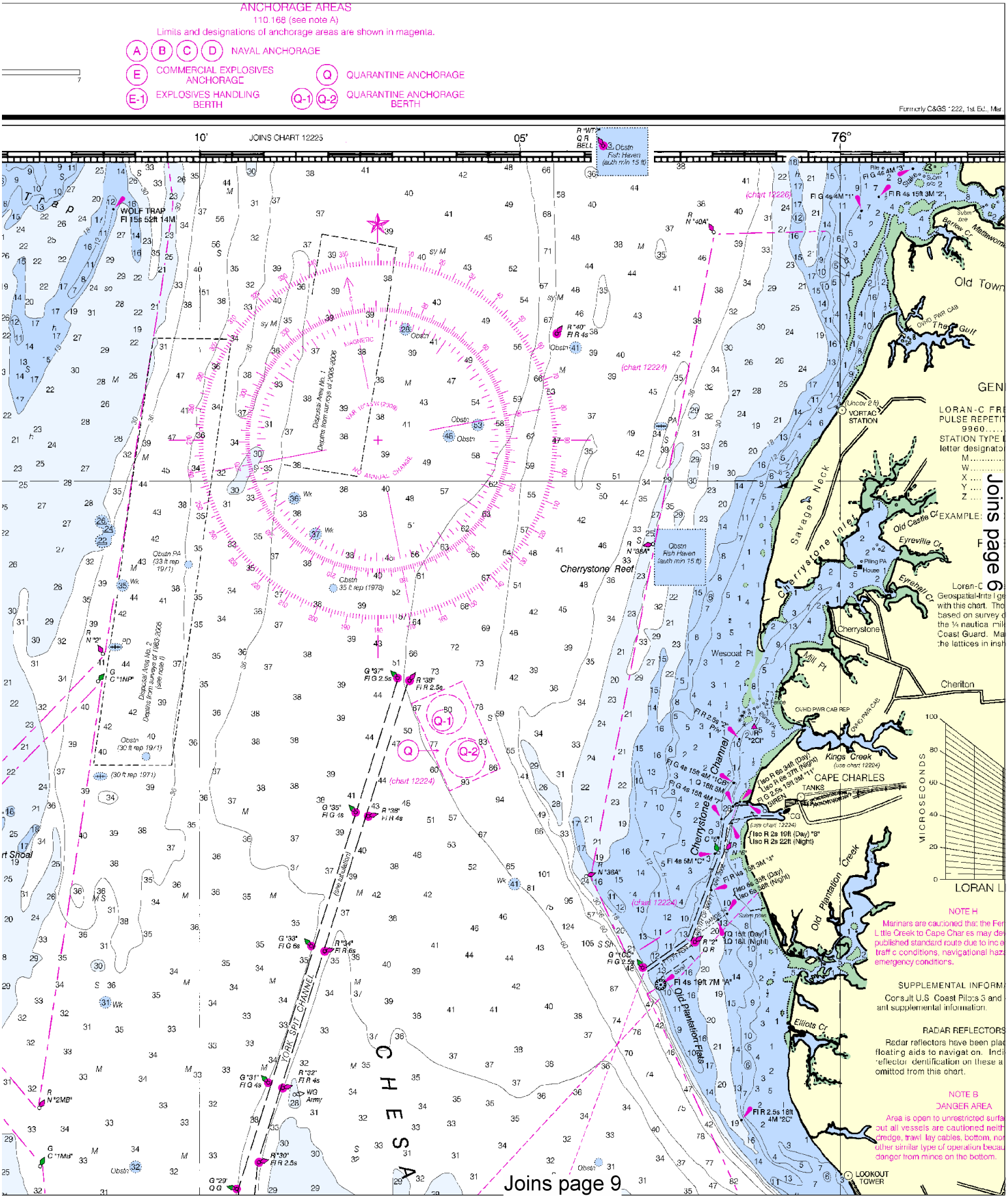
(Jan 2009)

SCALE 1:80,000
Nautical Miles
1 ½ 0 1 2 3 4 5 6
Yards
1000 0 2000 4000 6000 8000 10000



Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.
Nautical Miles
1 0 1 2 3 4 5 6 7
Yards
1000 0 2000 4000 6000 8000 10000

North



This BookletChart was reduced to 70% of the original chart scale.
The new scale is 1:114286. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

NOTE X

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222, 1st Ed., Mar. 1913 G-1962-784 KAPP 558

55' 45'

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

LORAN-C

GENERAL EXPLANATION

ORAN-C FREQUENCY.....10ckHz
ULSE REPETITION INTERVAL
9960.....99,600 Microseconds
ATION TYPE DESIGNATORS: (Not individua station
tter designators).
M..... Master
W..... Secondary
X..... Secondary
Y..... Secondary
Z..... Secondary

XAMPLE: 9960-X

RATES ON THIS CHART

Loran-C correction tables pub ished by the National ospatial-Intel gence Agency or others should not be used n this chart. The lines of position shown have been adjusted survey data. Every effort has been made to meet utica mile accuracy criteria established by the U.S. ard. Mariners are cautioned not to rely solely on s in inshore waters.

LORAN LINEAR INTERPOLATOR

NOTE H

ned that the Ferry Route from Char es may dev ate from the oute due to inc ement weather, avigational hazards or other s.

NTAL INFORMATION

st Pilots 3 and 4 for import- formation.

REFLECTORS

have been placed on many vigat on. Individual radar ion on these a ds has been hart.

NOTE B

NGER AREA

restricted surface navigation cautioned neither to anchor, les, bottom, nor conduct any peration because of residual n the bottom.

Townsend

SAND SHOAL INLET

The channel is subject to continual change. Entrance buoys are not charted because they are frequently shifted in position.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOAA WEATHER RADIO BROADCASTS

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Norfolk, VA	KHB-37	162.550 MHz
Heatherville, VA	WXM-57	162.400 MHz

Joins page 5

Joins page 10

North

Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles 1 0 1 2 3 4 5 6 7

Yards 1000 0 2000 4000 6000 8000 10000

See Note on page 5.

CAUTION

FISH TRAP AREAS AND STRUCTURES

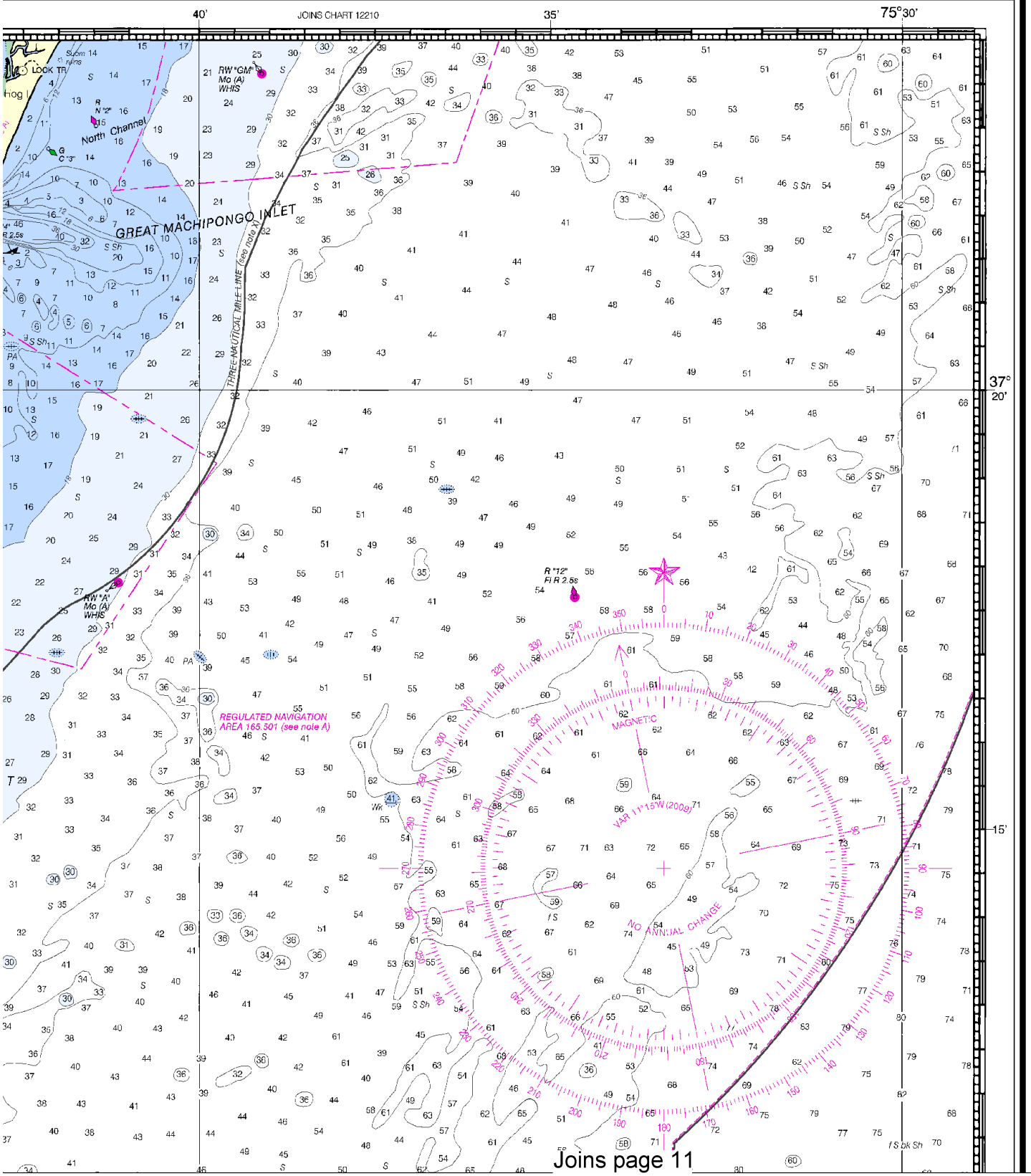
Mariners are warned that numerous uncharted duck blinds and fishing structures, some submerged, may exist in the fish trap areas. Such structures are not charted unless known to be permanent.

Regulations to assure clear passage to and through dredged and natural channels, and to established landings, are prescribed by the Corps of Engineers in the Code of Federal Regulations.

Definite limits of fish trap areas have been established in some areas, and those limits are shown thus:

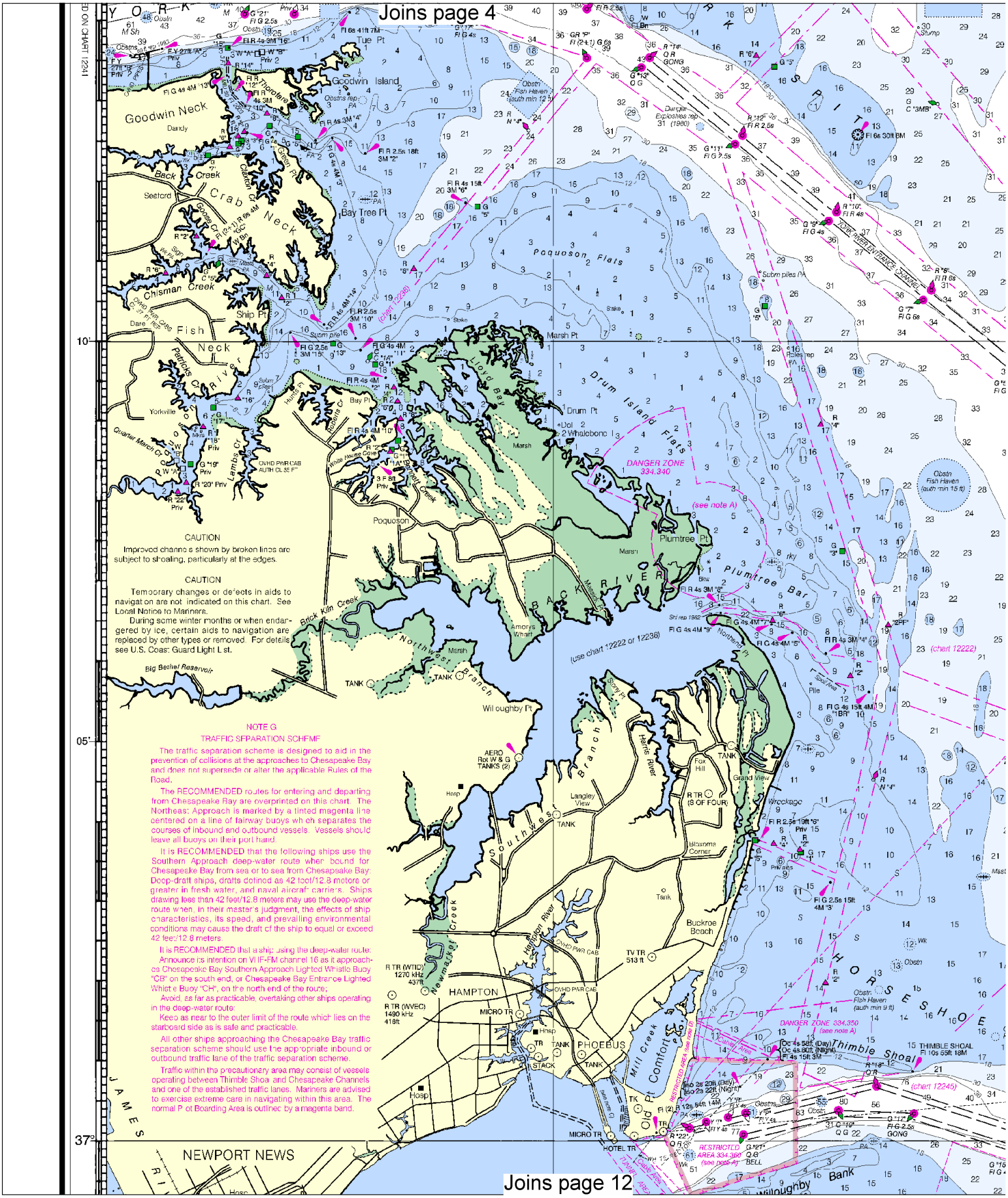
Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

SOUNDINGS IN FEET



Joins page 11

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0810 2/23/2010,
NGA Weekly Notice to Mariners: 1010 3/6/2010,
Canadian Coast Guard Notice to Mariners: n/a .



8

North

Printed at reduced scale. ~~SCALE 1:80,000~~

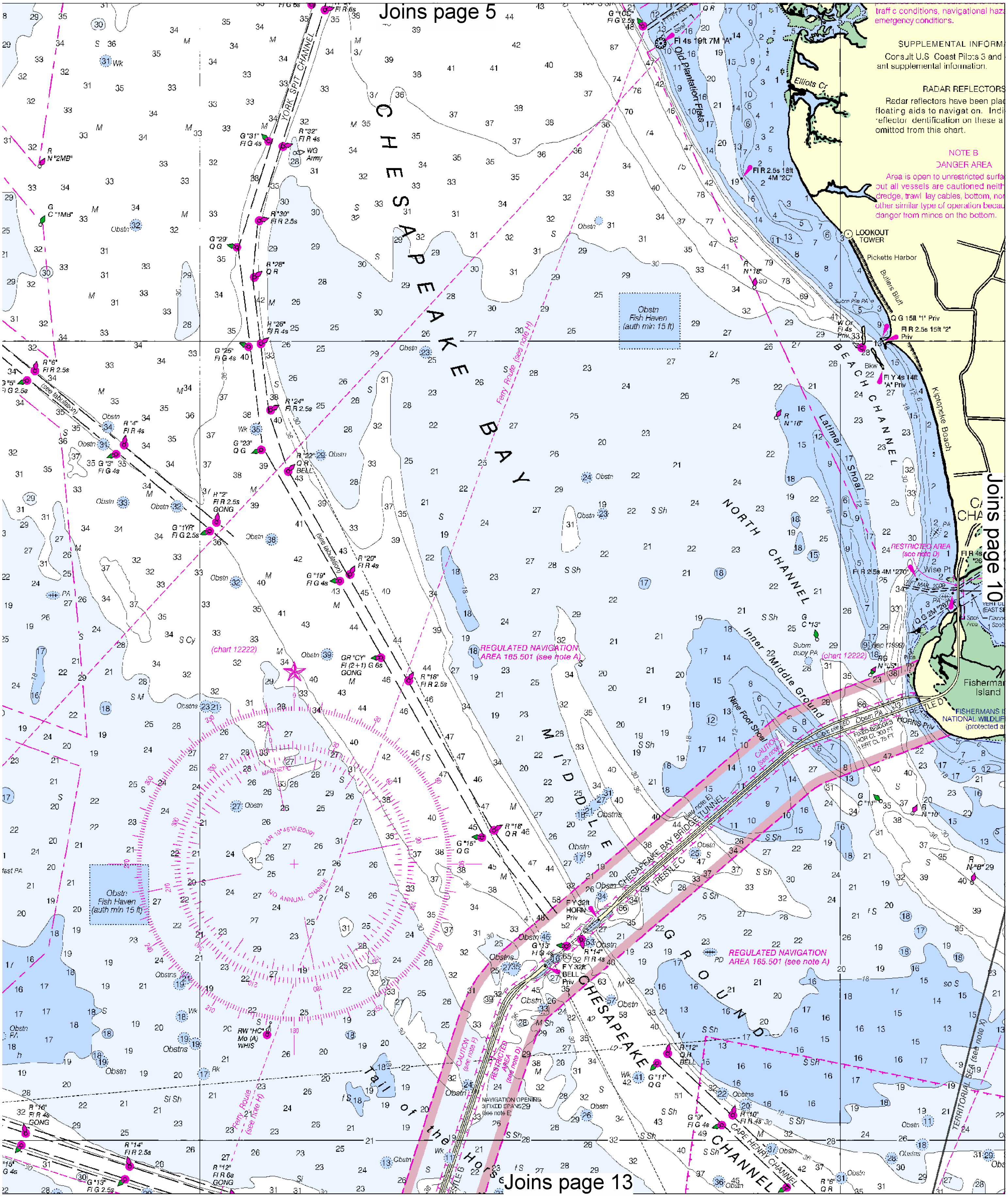
Nautical Miles

1 0 1 2 3 4 5 6 7

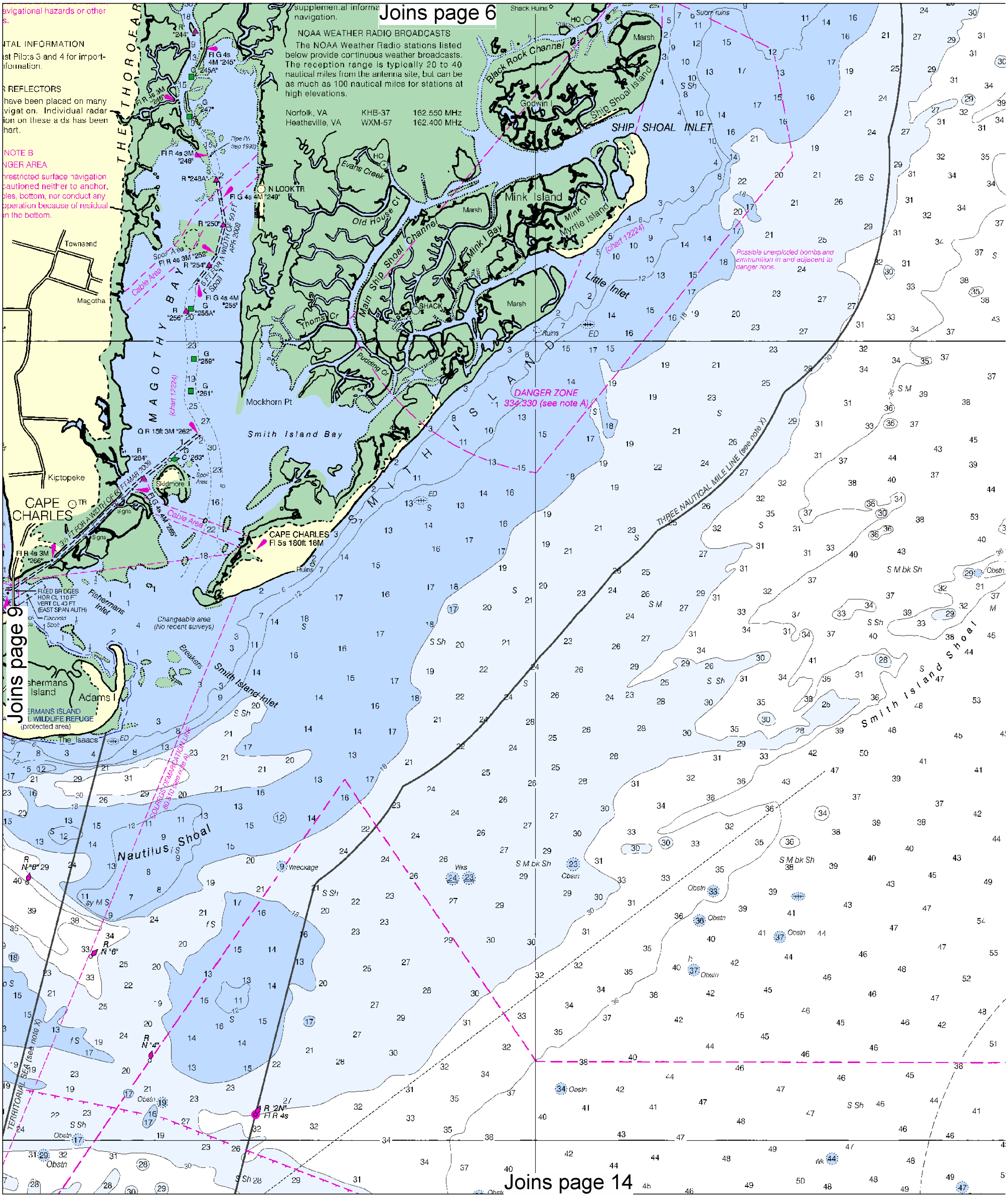
Yards

1000 0 2000 4000 6000 8000 10000

See Note on page 5.


Joins page 5
Joins page 13
Joins page 10
CHESAPEAKE BAY
YORK SPIT CHANNEL
NORTH CHANNEL
BEACH CHANNEL
Inner Middle Ground
MIDDLE GROUND
Tail of the Horseshoe
CHESAPEAKE CHANNEL
CAPE HENRY CHANNEL
Latimer Shoal
Nine Foot Shoal
Old Plantation Flats
Elliots Cr
LOOKOUT TOWER
Picketts Harbor
Butlers Bluff
Kiptopeke Beach
Wise Pt
Fisherman Island
FISHERMANS ISLAND NATIONAL WILDLIFE (protected a
CHESAPEAKE BAY BRIDGE-TUNNEL
TRESTLE C
TRESTLE D
Obstn Fish Haven (auth min 15 ft)
REGULATED NAVIGATION AREA 165.501 (see note A)
RESTRICTED AREA (see note D)
Ferry Route (see note H)
NAVIGATION OPENINGS 3 FIXED SPANS (see note E)
TERRITORIAL SEA (see note X)
(chart 12222)
VAR 10°45'W (2009)
NO ANNUAL CHANGE
MAGNETIC
traffic conditions, navigational haz emergency conditions.
SUPPLEMENTAL INFORM
Consult U.S. Coast Pilots 3 and ant supplemental information.
RADAR REFLECTORS
Radar reflectors have been plac floating aids to navigation. Indi reflector identification on these a omitted from this chart.
NOTE B
DANGER AREA
Area is open to unrestricted surfa but all vessels are cautioned neith dredge, trawl lay cables, bottom, nor other similar type of operation becau danger from mines on the bottom.

Joins page 6



Joins page 9

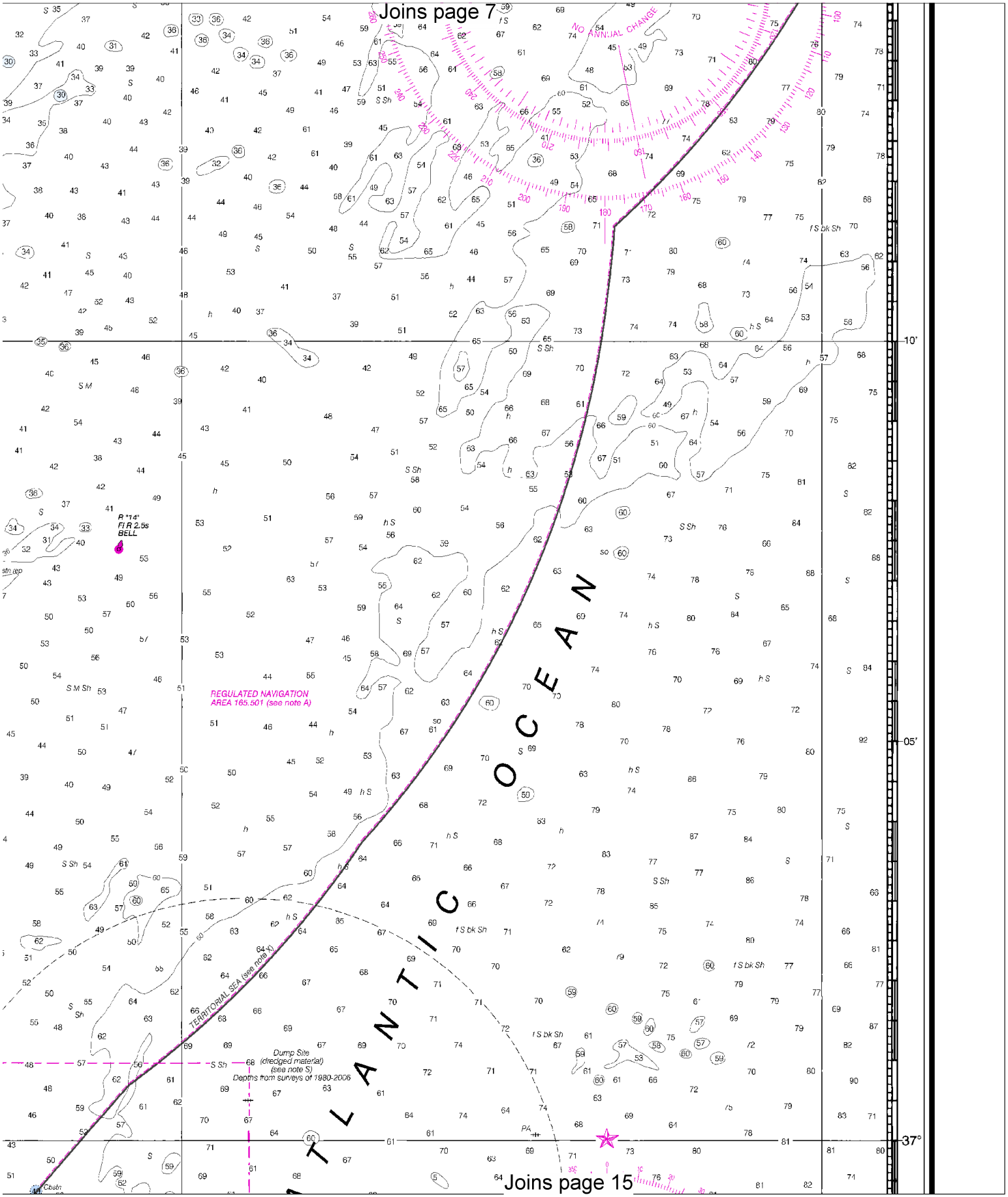
Joins page 14

North

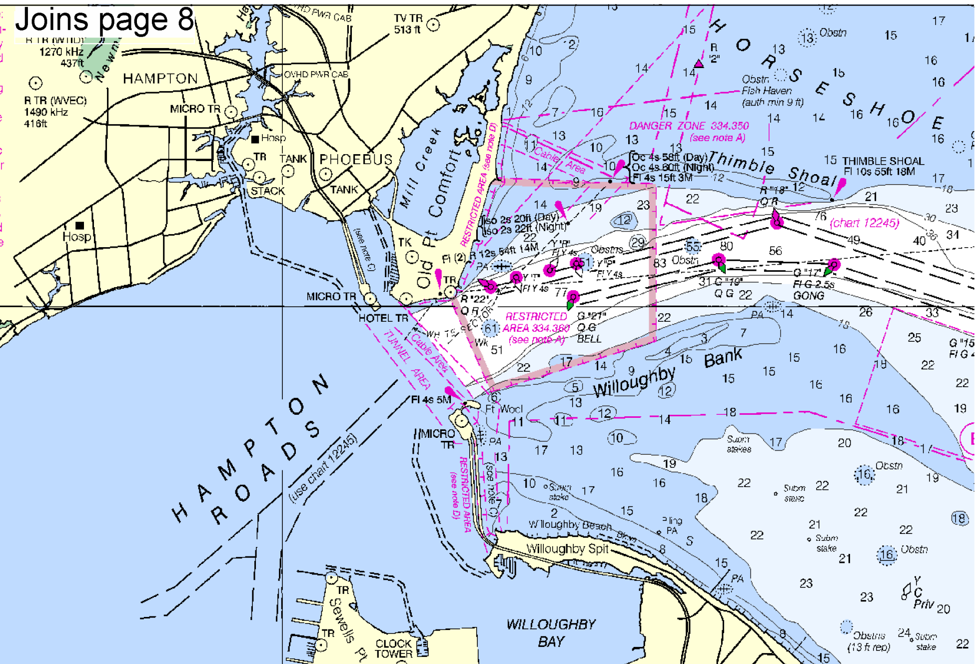
Printed at reduced scale. SCALE 1:80,000 See Note on page 5.

Nautical Miles 1 0 1 2 3 4 5 6 7

Yards 1000 0 2000 4000 6000 8000 10000


Joins page 7
NO ANNUAL CHANGE
R "14"
Fl R 2.5s
BELL
REGULATED NAVIGATION
AREA 165.501 (see note A)
TERRITORIAL SEA (see note X)
Dump Site
(dredged material)
(see note S)
Depths from surveys of 1980-2006
ATLANTIC OCEAN
10'
05'
37°
Joins page 15

Joins page 8



It is RECOMMENDED that a ship using the deep-water route:

Announce its intention on VHF-FM channel 16 as it approaches Chesapeake Bay Southern Approach Lighted Whistle Buoy "CB" on the south end, or Chesapeake Bay Entrance Lighted Whistle Buoy "CH", on the north end of the route;

Avoid, as far as practicable, overtaking other ships operating in the deep-water route:

Keep as near to the outer limit of the route which lies on the starboard side as is safe and practicable.

All other ships approaching the Chesapeake Bay traffic separation scheme should use the appropriate inbound or outbound traffic lane of the traffic separation scheme.

Traffic within the precautionary area may consist of vessels operating between Thimble Shoal and Chesapeake Channels and one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area. The normal Pilot Boarding Area is outlined by a magenta band.

THIMBLE SHOAL AND CHESAPEAKE BAY ENTRANCE CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUL 2008

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
THIMBLE SHOAL CHANNEL (A)	47.6	50.3	50.1	44.9	7,8-06	1000	13.0	55
NORTH AUXILIARY CHANNEL (B)						450		32
SOUTH AUXILIARY CHANNEL (B)						450		32
CAPE HENRY CHANNEL	46.1	49.0	49.5	46.0	3-08	1000	4.0	50
YORK SPIT CHANNEL	41.9	49.1	48.9	47.4	9 07	1000C	18.4	50
YORK RIVER ENTRANCE CHANNEL	37.0	38.1	38.3	37.4	7-08	750	13.8	37

A. CHANNEL IS RESTRICTED TO EXCLUDE VESSELS AND TOWS DRAWING LESS THAN 25 FEET. CHANNEL MAINTAINED TO 50 FEET.
B. PROJECT MAINTENANCE DISCONTINUED
C. CHANNEL WIDTH MAINTAINED TO 800 FEET
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

NOTE C
HAMPTON ROADS TUNNEL
APPROACH SPANS
HOR CL 45 FT
VERT CL 10 FT

For Symbols and Abbreviations see Chart No. 1

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

SOURCE DIAGRAM

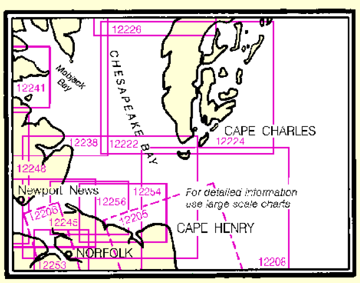
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.524" northward and 1.216" eastward to agree with this chart.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers and U.S. Coast Guard.



NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown. Lighted buoys A through F are uncharted due to frequent relocations.

CAUTION
SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area — Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

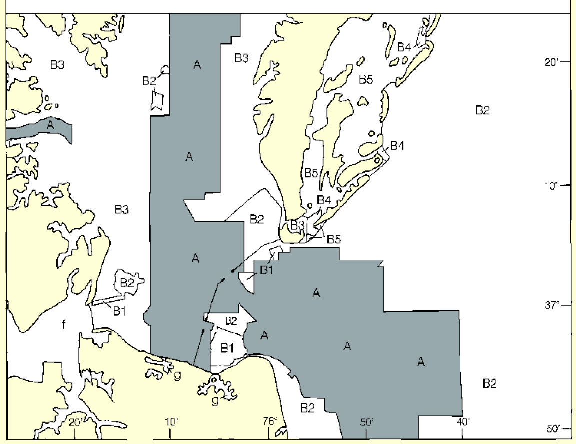
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

SOURCE

A	1990-2008	NOS Surveys	full bottom coverage
B1	1990-2001	NOS Surveys	partial bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage
B3	1940-1969	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage
f		Chart 12245	
g		Chart 12254	



76° 25' — 20' — 15'
37° — 55' — 36° 50'

80th Ed., Jan. /09 ■ Corrected through NM Jan. 17/09
Corrected through LNM Jan. 13/09

12221
LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

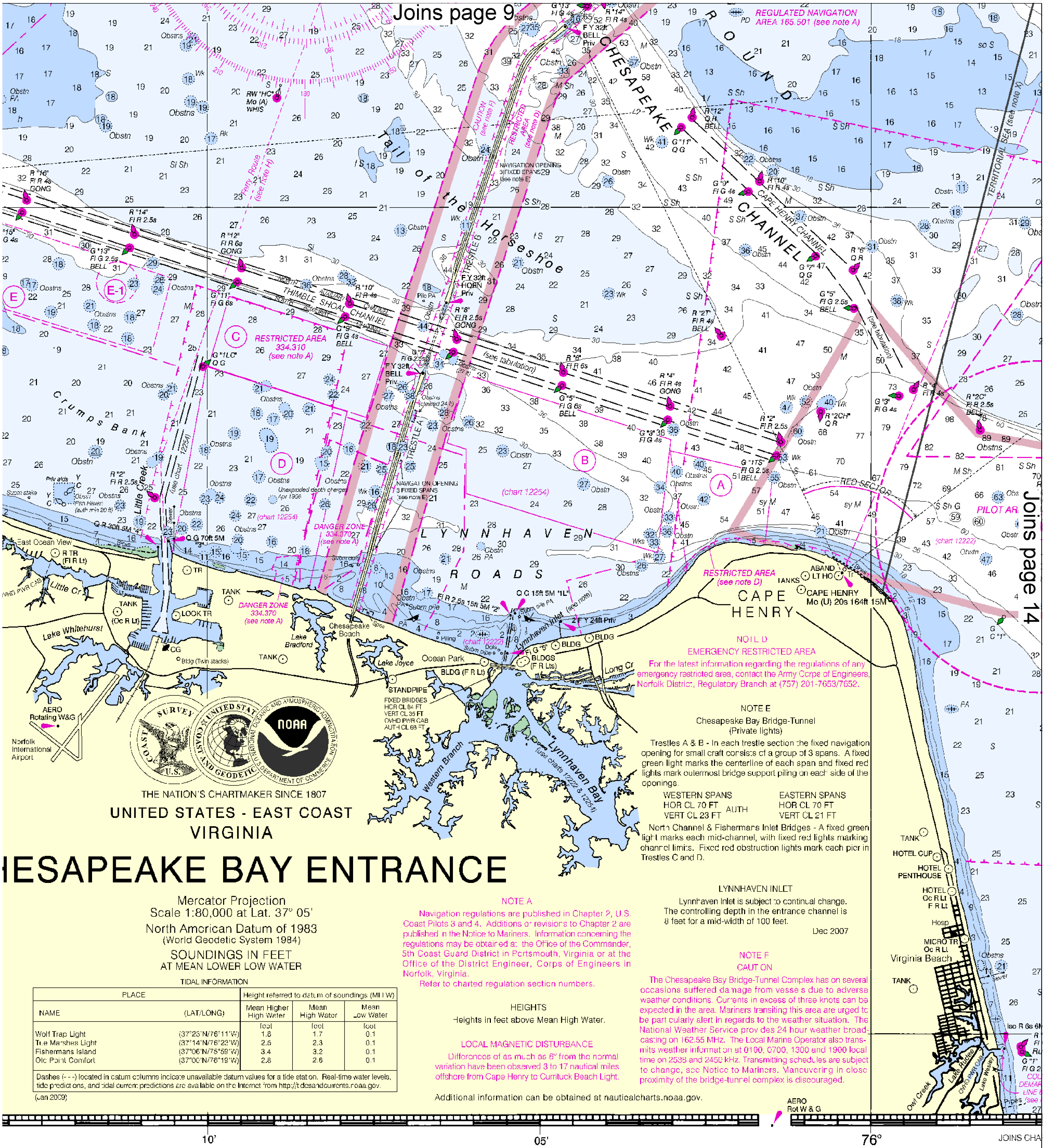
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Printed at reduced scale. SCALE 1:80,000 See Note on page 5.

Nautical Miles: 1 0 1 2 3 4 5 6 7
Yards: 1000 0 2000 4000 6000 8000 10000

North

Joins page 9



Joins page 14

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Wolf Trap Light	(37°23'N/76°11'W)	1.8	1.7	0.1
True Marshes Light	(37°14'N/76°23'W)	2.5	2.3	0.1
Fishermans Island	(37°06'N/75°59'W)	3.4	3.2	0.1
Old Point Comfort	(37°00'N/76°19'W)	2.8	2.6	0.1

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

(Jan 2009)

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilots 3 and 4. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Norfolk, Virginia.

Refer to charted regulation section numbers.

HEIGHTS

Heights in feet above Mean High Water.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 6° from the normal variation have been observed 3 to 17 nautical miles offshore from Cape Henry to Currituck Beach Light.

NOTE D

EMERGENCY RESTRICTED AREA

For the latest information regarding the regulations of any emergency restricted area, contact the Army Corps of Engineers, Norfolk District, Regulatory Branch at (757) 201-7653/7652.

NOTE E

Chesapeake Bay Bridge-Tunnel
(Private lights)

Trestles A & B - In each trestle section the fixed navigation opening for small craft consists of a group of 3 spans. A fixed green light marks the centerline of each span and fixed red lights mark outermost bridge support piling on each side of the openings.

WESTERN SPANS		EASTERN SPANS
HOR CL 70 FT	AUTH	HOR CL 70 FT
VERT CL 23 FT		VERT CL 21 FT

North Channel & Fishermans Inlet Bridges - A fixed green light marks each mid-channel, with fixed red lights marking channel limits. Fixed red obstruction lights mark each pier in Trestles C and D.

LYNNHAVEN INLET

Lynnhaven Inlet is subject to continual change. The controlling depth in the entrance channel is 8 feet for a mid-width of 100 feet.

Dec 2007

NOTE F

CAUTION

The Chesapeake Bay Bridge-Tunnel Complex has on several occasions suffered damage from vessels due to adverse weather conditions. Currents in excess of three knots can be expected in the area. Mariners transiting this area are urged to be particularly alert in regards to the weather situation. The National Weather Service provides 24 hour weather broadcasting on 162.55 MHz. The Local Marine Operator also transmits weather information at 0100, 0700, 1300 and 1900 local time on 2538 and 2450 kHz. Transmitting schedules are subject to change, see Notice to Mariners. Maneuvering in close proximity of the bridge-tunnel complex is discouraged.

Additional information can be obtained at nauticalcharts.noaa.gov.

SOUNDINGS IN FEET

PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

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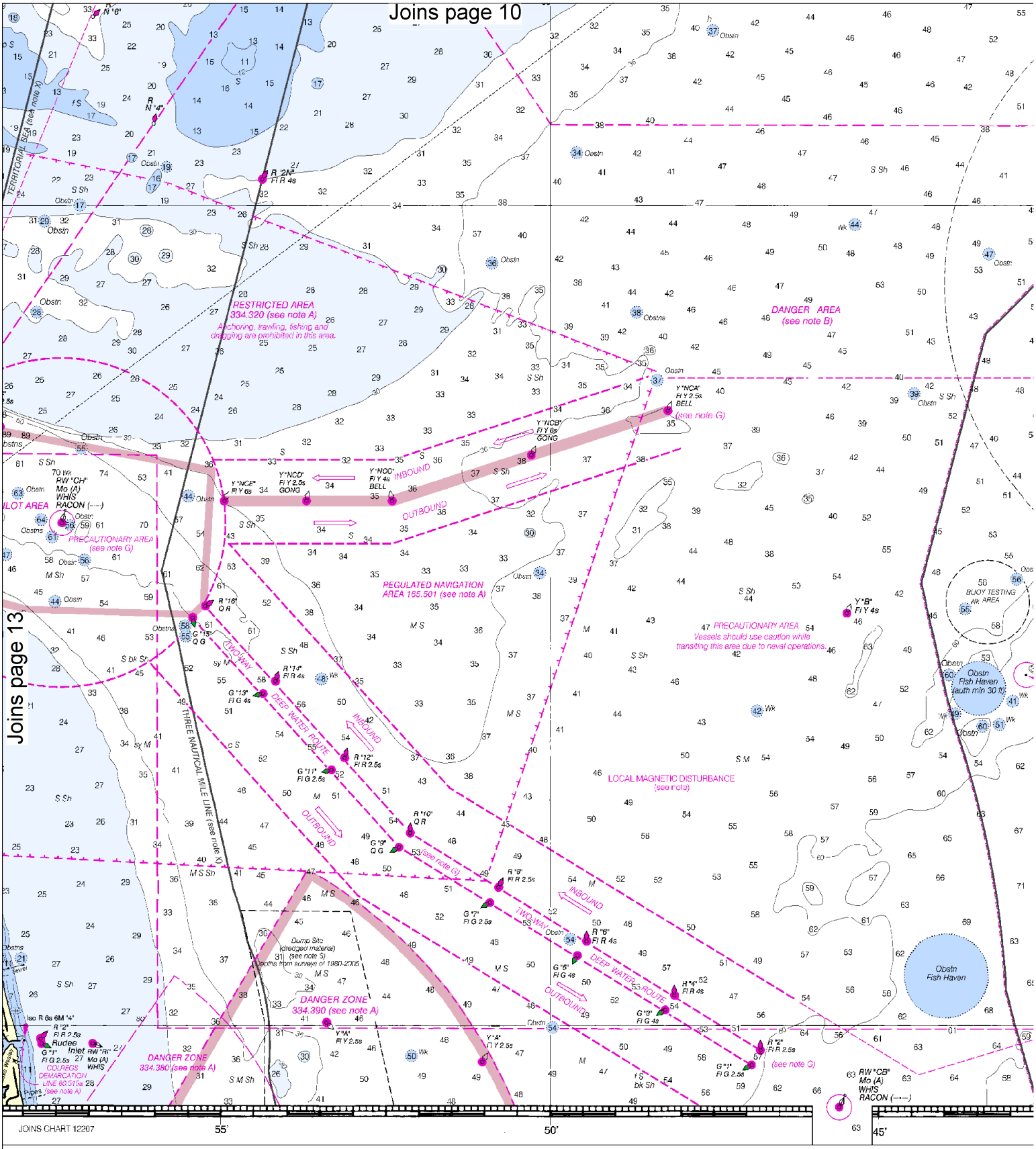
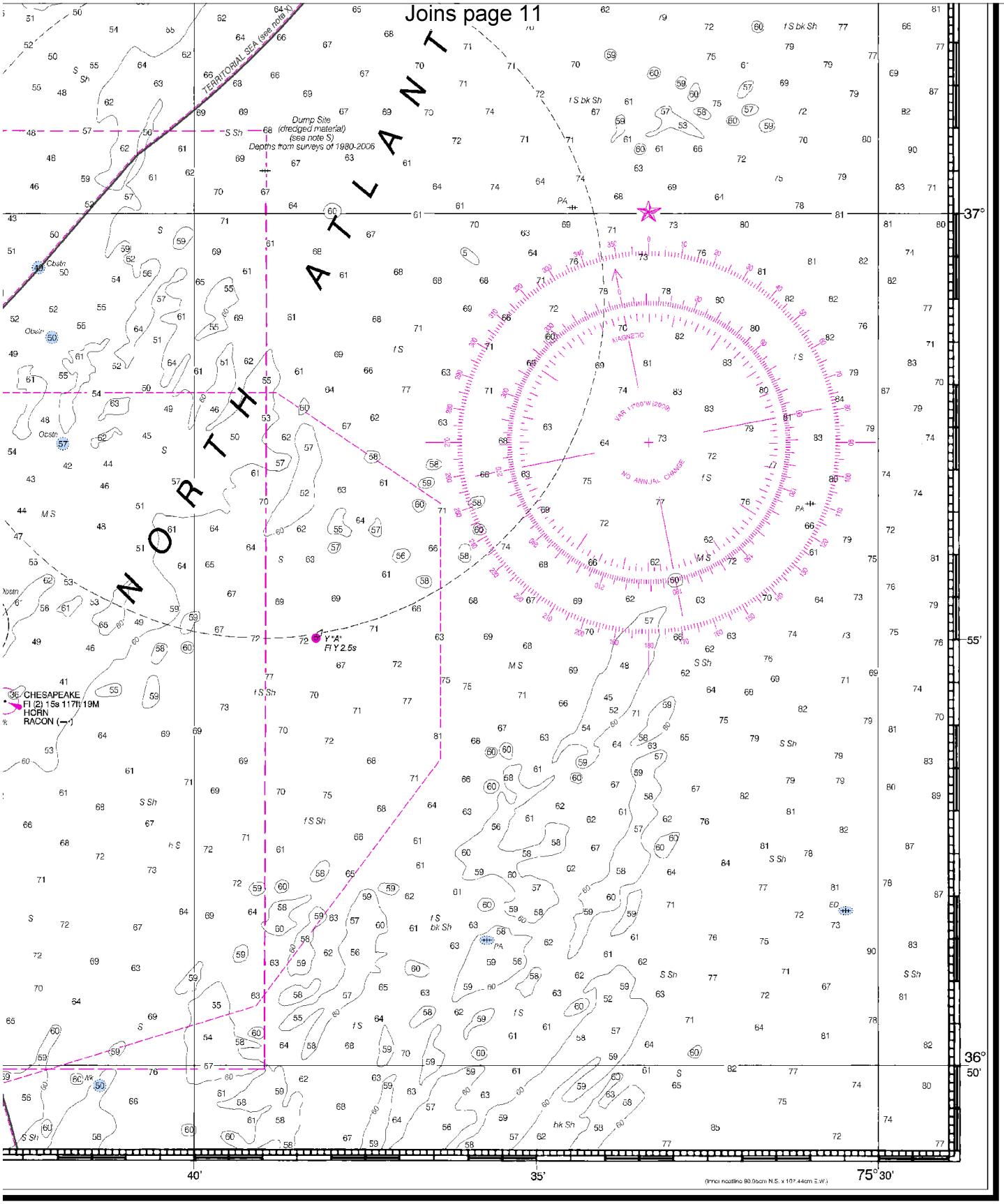


North

Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles

Yards



FATHOMS	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
FEET	6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102
METERS	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Chesapeake Bay Entrance

SOUNDINGS IN FEET - SCALE 1:80,000

12221

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ED. NO. 80
NSN 7642014010300 12AHA12221
NGA REFERENCE No.

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Intership safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22 – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78 – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

Coast Guard Search & Rescue – 800-418-7314/410-576-2525
Coast Guard Cape Charles – 757-331-2000
Coast Guard Milford Haven – 804-725-2125/3732
Coast Guard Portsmouth – 757-483-8526/8527
Coast Guard Parramore Beach – 757-787-9526/9527
Maryland Natural Resources Police – 410-260-8888
Virginia Marine Police – 800-541-4646

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes, producing over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Electronic Navigational Charts® (ENCs) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at: www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (RNCs) – RNCs are georeferenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at: www.NauticalCharts.NOAA.gov.

Official BookletCharts™ - BookletCharts™ are reduced scale NOAA charts printed in page-sized pieces. The "home edition" can be downloaded from NOAA for free and printed. The "professional edition", containing additional boating, safety, and educational edition is available for NOAA chart agents or over the Internet.

Official PocketCharts™ – PocketCharts™ are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot® – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from official NOAA chart agents or downloaded for free at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated each week by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print on Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Chart No. 1, Nautical Chart Symbols – This reference publication depicts basic chart elements and explains nautical chart symbols and abbreviations. Download it for free at: www.NauticalCharts.NOAA.gov.

Coast Survey Navigation Managers – These ambassadors to the maritime community maintain a regional presence for NOAA and help identify the challenges facing marine transportation and boating. They are listed at http://nauticalcharts.noaa.gov/nsd/reps.htm.

Internet sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.

NOAA, the Nation's Chartmaker